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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,431	01/12/2001	Frank M. Simonutti		2882

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EXAMINER

LEE, EDMUND H

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/760,431

Applicant(s)

SIMONUTTI ET AL.

Examiner

EDMUND H. LEE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/19/05 has been entered.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Sullivan et al (USPN 6083119). Sullivan et al teach the claimed product by process as evidenced at (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53). It should be noted that the product of claim 20 is a golf ball having a PU cover.

4. Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Dusbiber (USPN 3979126). Dusbiber teaches the claimed product by process. It should be noted that the product of claim 20 is a golf ball having a PU cover.

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5. Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Ward (USPN 3147324). Ward teaches the claimed product by process. It should be noted that the product of claim 20 is a golf ball having a PU cover.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al (USPN 6083119) in view of Hoy et al (USPN 4727094). In regard to claim 1, teaches the claimed process including forming a cover on a golf ball (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53); positioning a spherical uncovered golf ball product in the center of a mold, the mold having a spherical mold surface (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53)., closing the mold around the golf ball product (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53); mixing a polyurethane prepolymer and a curing agent to form a thermoset reaction mixture (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53); injecting the reaction mixture into the mold to form a golf ball cover layer over the golf ball product therein (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53); allowing the reaction mixture to gel and form a golf ball (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53); and opening the mold and removing the golf ball after the injecting step (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53). However, Lutz does not teach removing the golf ball within about 10 to 60

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seconds after the injecting step. Hoy et al teach demolding a polyurethane RIM product within 15 seconds after the molding operation without sacrifice in further processing or in the resulting properties of the polyurethane (col 17, Ins 40-50). Sullivan et al and Hoy et al are combinable because they are analogous with respect to RIM with polyol and isocyanate prepolymer to form a polyurethane product. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the polyol of Hoy et al in the process of Sullivan et al in order to reduce the cycle time of Lutz without sacrificing the quality of the golf balls. In regard to claims 2-12, Sullivan et al teach using a mold having projections for forming dimples in the cover of the golf ball (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53); using a solid core (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53); using a uncovered golf ball product having a solid core and a mantle layer (col 19, Ins 55-65; col 23, Ins 5-13; and col 4, Ins 52-53) and using a polyurethane prepolymer selected from the claimed group (col 20, Ins 50-51)--as a note, USPN 5334673, which is cited in Sullivan et al, teaches the claimed material. However, Sullivan et al does not teach injecting the mixture within 0.5 to 10 seconds; using a polyurethane prepolymer having the claimed viscosity; using a curing agent having the claimed viscosity; using a wound golf ball core; and using a golf ball product having a solid core and a lattice structure over the core; and removing the golf ball about 45 minutes after the injecting step. In regard to injecting the mixture within 0.5 to 10 seconds, injection duration is well-known in the molding art as an important molding parameter and the desired duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the

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time the invention was made. Further, claimed duration is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the invention was made to complete the injecting step of Sullivan et al within the claimed duration in order to reduce cycle time without sacrificing quality. In regard to using a polyurethane prepolymer having the claimed viscosity, such is a mere obvious matter of choice dependent on the material availability and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed material is well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed prepolymer having the claimed viscosity in the process of Sullivan et al in order to facilitate the molding of the golf ball. In regard to using a curing agent having the claimed viscosity, such is a mere obvious matter of choice dependent on the material availability and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed material is well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed curing agent having the claimed viscosity in the process of Sullivan et al in order to facilitate the molding of the golf ball. In regard to using a wound core, such is a mere obvious matter of choice dependent on the desired final product and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed uncovered golf ball product is well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the

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time the invention was made to use the claimed uncovered golf ball product in the process of Sullivan et al in order to produce a golf ball having a specific playing characteristic. In regard to using a golf ball product having a solid core and a lattice structure over the core, such is a mere obvious matter of choice dependent on the material availability and desired final product and of little patentable consequence to the claimed process since it is not a manipulative feature or step of the claimed process. Further, the claimed uncovered golf ball product is well-known in the molding art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed uncovered golf ball product in the process of Sullivan et al in order to ensure bonding between the coating and the uncovered golf ball product. In regard to removing the golf ball about 45 minutes after the injecting step, such is taught by the above combination of Sullivan et al and Hoy et al.

8. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan et al (USPN 6083119) in view of Weber et al (USPN 4218543). In regard to claim 16, Sullivan et al teach the claimed process for forming a golf ball (col 19, lns 55-65; col 20, lns 50-51; col 23, lns 5-13; and col 4, lns 52-53); providing an isocyanate (col 19, lns 55-65; col 20, lns 50-51; col 23, lns 5-13; and col 4, lns 52-53); providing a polyol (col 19, lns 55-65; col 20, lns 50-51; col 23, lns 5-13; and col 4, lns 52-53); mixing the first reactant and the second reactant together (col 19, lns 55-65; col 20, lns 50-51; col 23, lns 5-13; and col 4, lns 52-53); providing a molding assembly defining a molding cavity and having a golf ball component positioned within the molding cavity (col 19, lns 55-65; col 20, lns 50-51; col 23, lns 5-13; and col 4, lns 52-53); introducing the first and

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second reactant into the molding cavity (col 19, Ins 55-65; col 20, Ins 50-51; col 23, Ins 5-13; and col 4, Ins 52-53); and forming a cover layer about the golf ball component thereby producing the golf ball (col 19, Ins 55-65; col 20, Ins 50-51; col 23, Ins 5-13; and col 4, Ins 52-53). As a note, USPN 5334673, which is cited in Sullivan et al at col 20, Ins 50-51, teaches the claimed material. However, Sullivan et al do not teach heating the first reactant to about 80F to about 130F; and heating the second reactant to about 80F and about 150F. Weber et al teach molding a polyurethane product by RIM (col 12, Ins 29-40); and using reactants, polyol and isocyanates, having a temperature of from 10C to 50C. Sullivan et al and Weber et al are combinable because they are analogous with respect to forming a polyurethane product from a polyol and an isocyanate by RIM. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the step of heating the reactants to about 10 to 50C into the process of Sullivan et al in order to facilitate the injection of the reactants into the mold of Lutz. In regard to claims 17-19, Sullivan et al teaches using a polyol (col 20, Ins 50-51); and adding a density-increasing filler to at least one of the reactants (col 15, In 55-col 1, In 3). Sullivan et al do not teach heating the mold assembly to about 140F to 170F. Heating temperature is well-known in the molding art as an important parameter and the desired duration would have been obviously and readily determined through routine experimentation by one having ordinary skill in the art at the time the invention was made. Further, the claimed temperature is generally well-known in the molding art and it would have been obvious to one of ordinary skill in the art at the time the

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invention was made to heat the molding assembly of Sullivan et al to the claimed temperature in order to produce a high quality golf ball.

9. Applicant's arguments with respect to claims 1-2 and 16-20 have been considered but are moot in view of the new ground(s) of rejection.

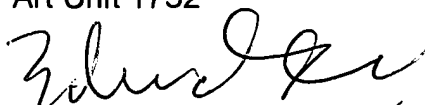
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDMUND H. LEE whose telephone number is 571.272.1204. The examiner can normally be reached on MONDAY-THURSDAY FROM 9AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571.272.1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EHL

EDMUND H. LEE
Primary Examiner
Art Unit 1732


6/13/08